

Forced to Expand

Sheridan-Gray Process Receives Wide Acclaim

In the last year at Sheridan Gray, a precision blank and pierce process, formerly known as Sarno process, originally developed as a small department for supplying low-cost tooling, has grown to a size that has taken over the major portion of the Sheridan-Gray Torrance facility.

As a result, plans are now under way to triple the Division's area, to accommodate increasing West Coast customer demand.

Now available to industry is a precision blank and pierce process that offers an excellent opportunity to produce many sheet metal products hitherto avoided because of excessive tool costs; it will also lower the cost of other sheet metal products at no sacrifice in product quality.

THE ACCOMPANYING photographs describe the dies, show how they are built, and indicate their versatility and the great number of forms and configurations which can be made. The photographs also illustrate the economic feasibility of this great simplified tooling process.

The new dies can blank and pierce aluminum up to 3/16-inch thick, mild steel up to 1/8 inch, stainless steel up to .090-inch, and titanium up to .112-inch. On aluminum, the dies can blank and pierce in excess of 110,000 parts without deterioration of quality. Holes are small in diameter as the thickness of the material can be effectively pierced.

WHILE DIE costs are highly relative, the cost of the Sheridan-Gray die is always many times less than that of a hard die tool to produce the same part. Typically, if the cost of a hard die tool is \$250-\$300, the cost of a Sheridan-Gray die in many cases will be about \$25-\$30.

In one case where die amortization cost alone was 40 cents per part using a hard die tool, the parts were produced and delivered to the

customer at a total cost of seven cents each, using this blanking process.

NORMALLY, the dies are built to hold typical aircraft tolerances. However, it is entirely possible to build a die that will hold plus-or-minus .005-inch of the periphery, and plus-or-minus .002-inch on hold diameters. This makes them adaptable to most types of electronic chassis work where dimensions must be held within critical limits.

The dies are not limited to blanking and piercing in a single plane. They may be used to blank and pierce parts having several parallel planes; for example: beaded panels, hat sections, etc. and in some cases parts having mild compound contour.

A GREAT advantage of the die is its adaptability to engineering changes. Hole relocation, changes of periphery design, etc., can be accomplished in a minimum of time and minus the often very high costs, both in time and money, of reworking a hard die tool.

The advantages held forth to industry by these dies are many and diverse, and have already been illustrated in many typical cases. Tool costs which approach the vanishing point with the Sheridan-Gray dies make it practical to produce many sheet metal product designs which were formerly shelved simply because the tooling costs were too high.

THESE SAME low tool costs lift short run production into the profitable category.

Many companies, especially those in the aircraft and missile categories, often require sheet metal parts in a hurry. Here again, the Sheridan-Gray company steps into the breach, and at no cost penalty. Sometimes very large or extremely complicated sheet metal are required which exceed the capacity of available press equipment. Simple and eco-

nomical dies are built to produce such parts in stages well within press capacity.

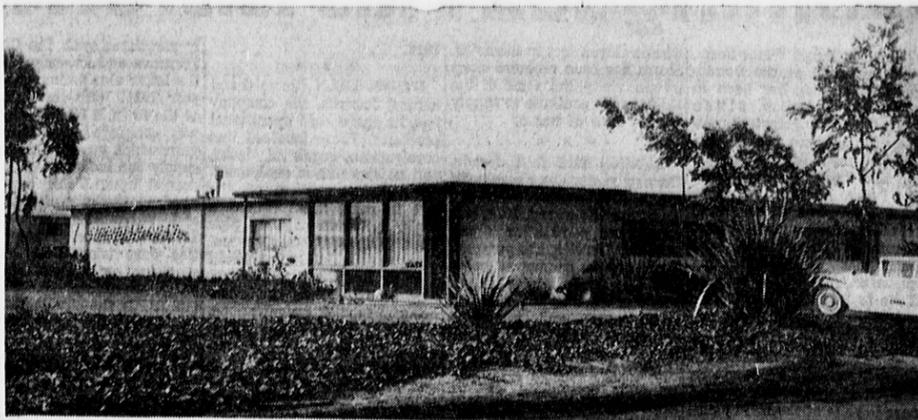
SHERIDAN-GRAY precision dies can be produced as simple blanking dies only, to blank and pierce in one operation, as progressive dies which blank and pierce in two operations, or as step dies to blank and pierce formed parts in one or several planes, and as a gang dies to blank and pierce several different parts at the same time.

The acquisition by Sheridan-Gray, Inc., Torrance, of the Sarno Precision Blank and Pierce Process is filling a long required need for a low cost tool service on the West Coast. The patented process represents 20 years refinements over the basic concepts of Steel Rule Die Blanking and is reported to be the

pioneer of other blanking processes.

NORMALLY, this firm builds the die, produces the parts and completes deliveries within 10 days from receipt of the purchase order. Coastwise, the break-even point on such orders, as compared with the cost of producing the parts by routing, nibbling, band sawing, stack drilling, etc., is (typically) six titanium or steel parts or 10 aluminum parts.

The newly expanded Sheridan-Gray facilities will also include an electrically heated furnace, ceramic tooling, and complete processing for sheet metal detail parts.



HOME OF SHERIDAN-GRAY . . . These modern buildings mark the home of Sheridan-Gray, one of the first industries to build on the city's municipal airport. New processes in manufacturing dies and other complex tools and

equipment have made the firm a leader in the West. Expansion plans for the firm have received city approval. (Photo)

Rivieran Joins Space Tech Lab

Col. Lawrence D. Ely (USAF ret'd.) has joined the Office of Scientific and Engineering Relations at Space Technology Laboratories, Inc., El Segundo, Dr. Howard S. Seifert, STL Special Assistant for Professional Development, announced this week. A specialist in aircraft structures, Colonel Ely received his B.S. Degree from the University of Michigan and his M.S. Degree in 1945 from the California Institute of Technology.

Colonel Ely joined the Air Force in 1942 and was assigned to the Air Force Ballistic Missile Division at its inception in 1954.

He holds the Legion of Merit and is a member of Sigma Xi, the Institute of Aeronautical Sciences, and the Soaring Society of America.

Colonel Ely resides with his wife, Katherine Shellenberger Ely, and their children, Barbara and Daniel, at 809 Calle Miramar.



OLDTIMERS CLUB . . . Celebrating 435 years service with National Supply Co. are (from left) Charles Knowlton, 40 years; Gerrit Geerlings, Chalmer Ethridge, 25 years; Owen Lake, 35 years; F. M. Mill, 40 years; Mae Sleep, 25 years; R. L. McKenna, 25 years; Louis Cranston, 40 years; Clair Stewart, 40 years; D. A. Murphy, 40 years; Ralph Orr, 25 years; Alfred Willoughby, 25 years; Mark Wright, 25 years; Jack Buffalo, 25 years.

SHERIDAN-GRAY

INCORPORATED

Precision blanking and piercing—"Sheridan rule die process"—missile, aircraft, and commercial

Close tolerance stretch forming to 360 degrees

Hot forming and sizing—titanium, high temperature steels, and exotic materials

24701 CRENSHAW BLVD., TORRANCE, CALIFORNIA



A new name for an old firm

GENERAL PETROLEUM changed its name on January 1 to MOBIL OIL COMPANY to match its products. The man you know as a "G.P. man" became a Mobil man on January 1. He is doing his part to see that the associations you valued under the old name will continue under the new. General Petroleum and other long-time members of the Mobil family have combined to build a stronger nationwide company. It now serves customers from coast to coast under the Mobil name.

Operations continue as before—
same outfit, same address, same fine Mobil products.

An industrial pioneer in the area, the Torrance Mobilgas Refinery is celebrating 30 years of service to the South Bay community.

MOBIL OIL COMPANY

a division of Socony Mobil Oil Co., Inc.

